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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,555	05/04/2001	John Christopher Deak	8325	1137

27752 7590 02/24/2005

THE PROCTER & GAMBLE COMPANY  
INTELLECTUAL PROPERTY DIVISION  
WINTON HILL TECHNICAL CENTER - BOX 161  
6110 CENTER HILL AVENUE  
CINCINNATI, OH 45224

EXAMINER

KUMAR, PREETI

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/849,555

Applicant(s)

DEAK ET AL.

Examiner

Preeti Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Ex Parte Prosecution is reopened because of the New Grounds of Rejection necessary upon further consideration of the prior art and the scope of the material limitations of the pending claims.

#### ***Response to Amendment/Argument***

2. Claims 1-32 are pending. Claims 33-43 are cancelled as per the Appeal Brief Filed 1/21/2005. Claim 1 is independent.

3. The rejection of claims 33-43 under 35 U.S.C. 103(a) as being unpatentable over Madore et al. (US 5,057,240) in view of Eisen (US 5,940,988) is withdrawn in light of applicants cancellation of the claims.

4. The rejection of claims 1-3, 10-24, 29-43 under 35 U.S.C. 102(a) as being anticipated by Berndt et al. (US 6,063,135) is withdrawn in light of applicants arguments.

5. The rejection of claims 4-9, and 25-28 under 35 U.S.C. 103(a) as being unpatentable over Berndt et al. (US 6,063,135) in view of Eisen (US 5,940,988) is maintained; see new grounds of rejection below.

6. Examiner notes that the term "lipophilic fluid" is a broad term not defined by the claim and the specification does not provide a standard for ascertaining the scope of what is included and/or excluded by the term "lipophilic fluid". Specifically examiner notes that on pages 4-8 of applicants specification, the term lipophilic fluid is recited to be one having a liquid phase present under operating conditions and to include siloxanes and generally preferred to have low volatility. Nowhere in the specification is

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the meaning of the term "lipophilic fluid" defined. Examiner has interpreted the term lipophilic fluid as any fluid that has an affinity to lipids.

***New Grounds of Rejection***

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-12, 20, 23-32 are rejected under 35 U.S.C. 103(a) as being obvious over Eisen (US 5,940,988).

Eisen teaches a method of dry cleaning garments wherein water vapor is supplied to the garments to increase the moisture content of the fabric being cleaned. This increase in moisture content makes the pressing procedure easier. See Fig.D step 12. Specifically, Eisen teaches a method of dry cleaning which includes the steps of: placing clothes in a rotatable drum of a dry cleaner, supplying a chemical in liquid or gas form to the drum to remove odors from the clothes in the pressurized drum, pressurizing the air in the drum to clean the clothes therein, supplying water or water vapor to the clothes in the pressurized drum, supplying a chemical fabric conditioner to condition the clothes in the pressurized drum, and evacuating air and filtering out fine particulate matter from the pressurized drum. See abstract and col.4,ln.65. Specifically regarding the lipophilic fluid, Eisen teaches various cleaning agents such as ozone, ammonia, baking soda and carbonic acid. See figure 7B.

Eisen teaches a dry cleaning apparatus including a housing having a door and an internal rotatable drum for receiving clothes to be cleaned, a motor and pulley system for rotating the drum, and a heating element having an air circulation blower for heating the clothes in the drum. The dry cleaning apparatus further includes a first hose connected to the housing for supplying pressurized air to the drum, a second hose connected to the housing for supplying water or water vapor to the clothes in the drum, and a third hose and vacuum pump connected to the housing for evacuating air and/or fine particulate matter from the drum. See col.8, ln.40-65.

Specifically regarding the pulsing, Eisen teaches that the dry cleaning apparatus allows the operator to select the parameters for each liquid vessel, gas cylinder and, air

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compressor and vacuum pump. Eisen teaches that the dry cleaning apparatus comprises a plurality of sensor output components for pressure, flow rate, temperature and time of processing, for each cleaning or conditioning treatment step used in the cleaning procedure. As shown in FIG. 1, the visual display screen 191 on control panel 190 will show, for example, in using vessel 132 having water 20 therein, what the operating conditions and parameters of pressure rate, flow rate, temperature of water and length of time sequence for the water conditioning step 320 for controlling how much water vapor 20v is supplied to basket chamber 90 of rotatable drum 82. Water vapor 20v is added to the garment 12 for increasing the moisture content of the fabric of garment 12 being cleaned to make pressing easier. Visual display screen 191 will display each of the operating conditions and parameters of processing steps 250, 260, 270, 280, 300, 310, 320, 330 and 340. The operator now presses the start button 193c to start the pre-determined programmable dry cleaning sequence of method 200. See col.9, ln.35-55.

Eisen do not specifically teach the amount of water vapor, time intervals of pulses and the temperature of the water vapor as recited by the instant claims. However, Eisen teaches a controlled method of applying water vapor wherein the operating conditions and parameters of pressure rate, flow rate, temperature of water and length of time sequence for controlling how much water vapor is supplied to the fabric in the basket chamber of the apparatus drum. See col.9, ln.35-55 and above.

Thus, it would have been obvious to one of ordinary skill in the art to modify the amount of water vapor, time intervals of pulses and the temperature of the water vapor

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and pulse the aqueous vapor having the droplet size as recited by the instant claims, since the prior art teaching of Eisen suggests adding water vapor to the garments for increasing the moisture content of the fabric while controlling various parameters of the water vapor supplied to the fabric garments in the drum.

12. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt et al. (US 6,063,135) in view of Eisen (US 5,940,988).

Berndt et al. teach a dry cleaning system and method, in which dry cleaning machinery is used in conjunction with a specific solvent which is derived from an organic/inorganic hybrid (organo silicone). Such solvent is used in combination with an organic and/or organo-silicone-based detergent which is specifically tailored for working in conjunction with the solvent to afford optimal cleaning. In a preferred embodiment, the method comprises the steps of loading articles into a cleaning basket; agitating the articles in the solvent and detergent composition in which they are immersed; removing most of the solvent and detergent composition; centrifuging the articles; heating the articles and remaining composition and creating vapors, condensing vapors and optionally reducing the pressure to dry the articles, recovering and recycling solvent and removing the articles from the basket after cooling the articles. See abstract and col.8-9 in their entirety.

Berndt et al. teach that the garments or other items to be dry cleaned are placed in a vertical combination washer dryer with a horizontally rotating agitating cleaning basket. The barrel of the basket will have numerous holes or perforations, to take advantage of the low surface tension of this cyclic siloxane to allow the immediate

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removal of the same during centrifugation. Specifically regarding the step of applying the lipophilic fluid, Berndt et al. teach that during the cleaning cycle, the solvent and the detergent mixture (if used) is pumped out of the basket through a "button trap" and then across a filter to remove the particulate and impurities from the mixture. At times a choice of a "batch" solvent flow may be used wherein the mixture may not be exposed to the filter system, but be pumped from the button trap directly back to the basket. See col.8, ln.25-35.

Regarding the step of applying an aqueous vapor, Berndt et al. teach that the garments are tumbled in the basket in the vapor-laden air heated to a temperature between 110 and 170 degrees Fahrenheit. See col.8, ln.55-56. Specifically the aqueous vapor is applied to the fabrics since Berndt et al. teach the use of pressurized steam to heat the air inside the basket through the use of a circulating fan. See col.8, ln.60.

Berndt et al. teach that the dry cleaning employs a fluid class of cyclic siloxanes more particularly known as octamethyl-cyclotetrasiloxane (tetramer), decamethyl-cyclopentasiloxane (pentamer) and dodecamethyl-cyclohexasiloxane (heximer). See col.4, ln.1-6.

Berndt et al. teach solvents may be modified and enhanced in the form of adding soil suspending additives to prevent re-deposition of dirt during the wash and rinse cycle, detergents for water-base stains, brighteners, and disinfectants for the disinfection of bacteria and other forms of microorganisms which are present in all clothing. Further, ionic surfactants may be employed in conjunction with the solvent. It



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should be noted that the additive may be included as a component of the solvent solution or as a separate agent. See col.6, ln.35-60.

Berndt et al. do not teach the step of applying an aqueous vapor that is water based as recited by the instant claims.

Eisen is relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at that time the invention was made, to modify the teaching of Berndt et al. and incorporate the step of applying an aqueous vapor that is water based as taught by Eisen, because Eisen illustrates a method of dry cleaning wherein a controlled amount of water vapor is supplied to the garments to increase the moisture content of the fabric. One of ordinary skill in the art would have been motivated to combine the teaching of Eisen with that of Berndt et al. because Eisen teaches that supplying water vapor to fabrics in a dry cleaning process provides the benefit of an increase the moisture content of the fabric being cleaned thus, making the pressing procedure easier.

13. Claims 13-19,21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisen (US 5,940,988) as applied to claims 1-12, 20, 23-32 above, and further in view of Berndt et al. (US 6,063,135).

Eisen is relied upon as set forth above. However, Eisen does not teach a siloxane, as recited by the instant claims.

Berndt et al. are relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art to modify the teaching of Eisen and incorporate the siloxane, surfactant and emulsifier as taught by

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Berndt et al., because Berndt et al. illustrates a method of dry cleaning wherein a silicone based solvent which has a desirable flash point rating and fabric-safe qualities together with superior solvency for fatty acids, grease and oils and furthermore is environmentally friendly. Also, Berndt et al. teach that surfactants form the basis of a desired detergent that is effective in the removal of water soluble soils from fabrics during the dry cleaning process with volatile silicone fluids in machines. One of ordinary skill in the art would have been motivated to combine the teachings of Berndt et al. with that of Eisen because Berndt et al. suggests that the cyclic siloxane solvents, surfactants and emulsifiers provide the benefit of superior cleaning in a dry cleaning process.

14. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madore et al. (US 5,057,240) in view of Eisen (US 5,940,988).

Madore et al. teach a liquid detergent having fabric softening properties and including an improved fabric softening agent. The fabric softening agent is a silicone fabric softening agent selected from a polyorganosiloxane; a polydiorganosiloxane gum; or a mixture of the said gum with either a low viscosity polydiorganosiloxane or with a volatile cyclic silicone such as octamethylcyclotetrasiloxane or decamethylcyclopentasiloxane. Certain emulsions of a highly branched and cross-linked silicone polymer may also be employed. See abstract and col.5, ln.35-46. Specifically regarding the amount of silicone polymer, Madore et al. teach that the volatile cyclic silicone constitutes about 90% by weight based on the total weight of the silicone mixture. The volatile cyclic silicone must be sufficiently volatile to evaporate at room

temperature, and exemplary materials are octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane, or mixtures thereof. See col.2, ln.60-65.

Regarding adjunct agents, Madore et al. teach the liquid detergent of the present invention may contain many of the commonly included ingredients such as surfactants, builders, enzymes and enzyme stabilizers, pH modifiers, bleach activators and bleaches, antifoams, anti-redeposition agents, chelants, soil release polymers, dye transfer protectants, zeolite dispersants, water softeners, perfumes, anti-oxidants, and fluorescent brighteners, the essential ingredients for purposes of the present invention are an anionic surfactant, a nonionic surfactant, a carrier fluid, and the softening agent. See col.3, ln.22-32 and col.6, ln.5-15.

In example I Madore et al. illustrate silicones emulsified in a detergent matrix comprising surfactant and other adjunct components. See col.5,ln.65-col.6, ln15. In example II Madore et al. illustrate removing textile conditioners from cotton polyester terry towels in order to strip fibers of conditioners applied at the mill during manufacture of the towels. See col.6, ln.50-67. In the context of the disclosure, the removal of the conditioners applied at the mill is to have a blank slate to illustrate the fabric softening properties of the invention.

In examples III and IV, Madore et al. illustrate a liquid detergent composition having fabric softening properties comprising a quarternary ammonium softener, octamethylcyclopentasiloxane solvent and water for use in a standard washing machine. See col.7-8. Madore et al. teach the use of similar materials (i.e.

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decamethylcyclopentasiloxane) and at the similar temperature in the analogous process of cleaning fabrics.

Also, in example III Madore et al. illustrate that the fabric bundle was loaded into a washing machine and about fifty grams of liquid detergent containing a softening agent was added to the washing machine. The washing machine controls were established to provide a warm water wash (35.degree. C.) and a cold water rinse. The duration of the wash cycle of the particular washing machine employed was about fourteen minutes. At the end of the cycle of the washing machine, the bundle was dried in a dryer for about one hour. Each bundle was exposed to two complete cycles including washing and drying. See col.7, ln.25-40.

However, Madore et al. do not specifically teach applying an aqueous vapor to the fabric as recited by the instant claims.

Eisen is relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art to modify the teaching of Madore et al. by applying an aqueous vapor to the fabric as recited by the instant claims, since the prior art teaching of Eisen suggests the benefit of applying water vapor to garments for increasing the moisture content of the fabric while controlling how much water vapor is supplied to the fabric garments and furthermore, Madore et al. teach an analogous method of cleaning and softening fabric with an analogous lipophilic fluid and water in general.

**Conclusion**

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Preeti Kumar  
Examiner  
Art Unit 1751

PK

GREGORY DELCOTTO  
PRIMARY EXAMINER  
